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- A transformer having galvanically isolated windings defines a primary side and a secondary side of a power conversion apparatus. A switch couples power from a source on the primary side via the transformer to a load on the secondary side. A first circuit assembly has primary-side circuitry galvanically coupled to a port for connection to an input power source. The primary-side circuitry includes a primary-side communicator for sending or receiving control information used in controlling operation of the power conversion apparatus. A second circuit assembly has secondary-side circuitry galvanically coupled to a port for connection to a load. The secondary-side circuitry includes a secondary-side communicator for sending or receiving the control information. The first and second circuit assemblies are mechanically separable as assemblies from one another, are galvanically isolated from one another, and are configured to be placed in positions relative to one another to enable the primary-side and secondary-side communicators to cooperate to pass the control information.

**21 Claims, 15 Drawing Sheets**

